

WHAT IS CLAIMED IS:

1. A method of lighting a road scene with a vehicle headlight, including the following operations:
 - detecting in the road scene at least one person,
 - 5 - pinpointing the location of this person in the road scene,
 - creating, on an imager, a mask having dimensions and position corresponding to the person, and
 - illuminating the road through the imager, so creating a projected shadow around the person.
- 10 2. A method of lighting according to Claim 1 which illuminates a zone of the road scene situated above a cut-off line.
3. A method of lighting according to Claim 1, wherein the detection of the person comprises taking an image of the road scene with thermal detection of the person.
- 15 4. A method of lighting according to Claim 1, wherein detection of the person comprises taking an image of the road scene with detection of movement of the person.
5. A method of lighting according to Claim 1, wherein the pinpointing of location, and mask creation, are obtained by image processing.
- 20 6. A method of lighting according to Claim 1, wherein the pinpointing of location consists in applying a threshold-value technique to the image of the road scene.

7. A method of lighting according to Claim 6, wherein the application of threshold value comprises forming an image at two levels, black and white, of the image of the road scene.
8. A method of lighting according to Claim 7, wherein the creation of the mask comprises applying, in inverse video on the imager, the image to which the threshold-value technique has been applied.
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9. A method of lighting according to Claim 6, wherein the creation of the mask includes convolution, by means of a convoluting element, of the image to which the threshold-value technique has been applied.
10. A method of lighting according to Claim 1, wherein creation of the mask is performed in real time.
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11. A main beam headlight for a vehicle, comprising a first light source and a system for modulating the light therefrom, wherein the modulating system comprises an imager, a light guide for transporting the light from the light source to the imager, and an electronic system for generating masks on the imager for blocking light.
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12. A headlight according to Claim 11, wherein the imager comprises a matrix of liquid crystal systems which are electrically controllable, or a matrix of lenses, the focal length of which is capable of being modulated by electrical control.
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13. A headlight according to Claim 11, wherein the light guide comprises at least one matrix of optical fibres or an optical fibre of large cross section.
14. A headlight according to Claim 11, wherein the light guide comprises a first light path for guiding the light towards the imager, and a second light path for guiding the light towards an optic adapted for diffusing the light.
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15. A main beam headlight for a vehicle, comprising a first light source and a system for modulating the light therefrom, wherein the modulating system comprises an imager comprising a matrix of lenses, the focal length of which is able to be modulated by electrical control, and an electronic system for generating masks on the imager for blocking light.
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16. A headlight according to Claim 11, including a second light source independent of the first light source and providing main beam or cruising illumination.
17. A headlight according to Claim 11, wherein the electronic system is controlled by a means for detecting persons.
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18. A headlight according to Claim 17, wherein the detection means is a thermal camera.
19. A headlight according to Claim 17, wherein the detection means is an infrared camera.
- 15 20. A headlight according to Claim 11, wherein the light guide includes, upstream of the imager, means for making the distribution of the light in the imager homogeneous.
21. A headlight according to Claim 20, wherein the means for making the light homogeneous is a block or bar of quartz or glass.
- 20 22. A headlight according to Claim 11, including a lens for diffusing the light downstream of the imager.
23. A headlight according to Claim 11, wherein the first light source is located in a housing outside the modulating system.